

Covid prevention resources

a mini guide by Nash – last updated September 14, 2024

** DISCLAIMER: I am not a medical professional nor an expert in covid mitigation, and my knowledge comes from a combination of reliable essays & reports on covid & long covid, reading scientific literature, and my own experience.*

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Basics of covid spread

- **Asymptomatic cases**
 - Approximately 40% of covid cases are asymptomatic.¹
 - So, feeling fine is not at all a reliable sign of being covid-negative!
- **Aerosol spread**
 - Covid spreads via aerosols that we exhale, not just through droplets that we spit, sneeze, or cough.²
 - So, it behaves like smoke - it moves with air currents including outdoors, and can linger in an empty indoor space for a few hours.³ It's as if everyone is smoking all the time and the smoke can give you a potentially disabling & life threatening illness.
 - This is why masks are such a key mitigation measure, more important than hand-washing/distancing/etc!
- **Distancing**
 - The "6-foot rule" we heard so much in 2020 was based on droplet-based spread, not aerosol spread, so it is very much not a solid procedure for keeping yourself safe, especially in crowded and poorly-ventilated indoor spaces.⁴
 - However, distancing can still reduce risk especially in less crowded, well ventilated, and/or outdoor spaces.
- **Outdoor spread**
 - Outdoor spaces are generally much safer than indoor spaces in terms of covid spread because of the elevated level of airflow due to wind and lack of enclosed space.⁵
 - However, covid can still spread outdoors, so precautions are still important in outdoor spaces especially when crowded.⁶

¹ <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2787098>

² [https://www.thelancet.com/article/S0140-6736\(21\)00869-2/fulltext](https://www.thelancet.com/article/S0140-6736(21)00869-2/fulltext)

³ <https://time.com/6162065/covid-19-airborne-transmission-confusion/>,
<https://time.com/5883081/covid-19-transmitted-aerosols/>

⁴ <https://www.pnas.org/doi/full/10.1073/pnas.2018995118>

⁵ <https://academic.oup.com/jid/article/223/4/550/6009483>

⁶ <https://www.mdpi.com/2311-5521/9/3/54>, <https://time.com/6198005/outdoor-transmission-ba5-covid-19/>

Masks

- **Cloth masks: just don't**
 - Don't use these please
- **Surgical masks: not very protective**
 - Do not use them unless it's the only thing you can access or will wear.
 - Try to mitigate leakage out of the sides using fit hacks - see this [paper](#)
- **KN95s & KF94s: baseline protective**
 - e.g.: [WWDoll](#), [Wellbefore](#)
 - KN95s are the ear-loop bifold type, most commonly what people wear, but don't always fit great especially around the nose.
 - KF94s are the boat-style ear-loop type, are also widely used and may fit some people a bit better.
 - You can use a strap clip with either style to connect the two ear loops behind your head and give a better fit & seal.
- **Disposable N95s: very protective**
 - e.g.: [3M Aura](#), [3M VFlex 1804](#) or [3M VFlex 9105](#) (these latter two are slightly different models of same mask - equally effective against covid), [AccuMed BNX](#)
 - These all have head straps and generally fit most people better, and as a result are significantly more protective than KN95s/KF94s.
- **Reusable N95s: most protective**
 - e.g.: [EnvoMask](#), [FloMask](#), [P100](#)
 - These are the extreme protective end of things and can look a bit intense, but can potentially be even better fitting and more cost effective over time.
- Sip mask valve
 - order from the [SipMask site](#)
 - Valve you can install into your mask so you can drink with a straw more safely / without having to remove the mask

Tests

- **Rapid antigen tests (RATs)**

- These are ones I like, but I can't find good accuracy comparisons online.
 - [FlowFlex](#) test
 - [iHealth](#) test
- They are not super duper accurate but are easier to access.
 - They almost never give false positives but have a high-ish rate of false negatives.
 - Testing twice over 48 hours decreases the likelihood of false negative.
 - Swabbing your throat/cheeks as well as your nose may increase the likelihood of detecting a true positive.
 - You're more likely to detect a true positive if you're symptomatic & positive than asymptomatic & positive / to get a false negative if you're asymptomatic & positive than symptomatic & positive generally.
 - You can buy rapid tests at CVS and the like, although you may have to ask for them at the pharmacy counter. You may also be able to find them at public libraries.

- **Home PCR tests**

- This info is all sourced from this [Clean Air Club thread](#).
- Home PCR tests are much better than RATs but harder to access.
 - They replicate the lab process of PCR and have a significantly lower false-negative rate.
 - However, they are more expensive and need to be ordered online.
- These are the ones I have used or heard good things about:
 - Lucira
 - Order [test kit](#) (comes with test and reader)
 - \$50 each (gets a bit expensive over time)
 - Sensitivity (likelihood to detect a true positive): ~88%
 - Tests for flu A & B as well as covid!
 - Metrix
 - Order [reader](#) & [tests](#)
 - \$50 for the reader, \$25 for each test (cheaper up front but more expensive over time)
 - Sensitivity: ~96%
 - Pluslife
 - Order [reader](#) & [tests](#) - request [discount code](#)!
 - ~\$300 for reader & ~\$8 per test (more expensive up front but cheaper over time)
 - Sensitivity: [~98%](#)
 - [Here](#) are some tips & tricks / FAQs on the Pluslife test

Air filtration

- **HEPA filtering**
 - Corsi-Rosenthal boxes
 -
 - Manufactured home air purifiers
 -
 - Portable filters
 - SmartAir QT3
 -
- **UV light treatment**
 - Building treatment devices
 -
 - Portable devices
 -

Mouthwashes

- **Mouthwashes with CPC (cetylpyridinium chloride)** have shown potential to help prevent covid - [\(1\)](#), [\(2\)](#).
- Make sure that CPC is the active ingredient!
- Sources: [Crest](#), [Target](#), [CVS](#)
- Instructions: use a few times a day for a minute to rinse & gargle.

Nasal sprays

- Certain nasal sprays have shown potential to help prevent covid.
- **Iota-carrageenan sprays**
 - Research: [\[\]](#)
 - Sources: [Epothex](#), [Betadine](#)
 - Instructions:
- **Xylitol spray - Xlear**
 - Research: [\(1\)](#), [\(2\)](#)
 - Sources: [CVS](#), [Target](#), [Amazon](#)
 - [Instructions](#): blow nose beforehand, use 2-3x/day, 2-4 sprays in each nostril
- **Nitrous oxide spray (NONS) - Enovid**
 - MAJOR con: Enovid is manufactured by an Israeli pharma company, so it violates the general BDS call to avoid purchasing Israeli products. Not to mention that it's pricey and takes a long time to ship in any case. I wanted to include it in the list for informational purposes, but do not recommend buying it. Hopefully some other company makes an effective NONS spray eventually.
 - Research: [\(1\)](#), [\(2\)](#)
 - Source: [BuyEnovid](#)
 - [Instructions](#): use 5x/day, 2 sprays in each nostril. spray has a long shelf life before being opened, but has to be used within 60 days after it is opened

Vaccines

- mRNA
- Novavax
 -  Get Novavax'd 2024 - drafted March 2024

Isolating when sick

- Use a combination of (hopefully all of!) the above mitigation techniques if you or someone you live with is sick.
- See my other covid mini guide [here](#) for recommendations on what to do when you test positive.